Synopsis of the Thesis

A COMPARATIVE STUDY RELATING TO TRAINING EFFECTIVENESS OF SELECTED MANUFACTURING AND INFORMATION TECHNOLOGY INDUSTRIES IN AND AROUND PUNE

Submitted by

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Introduction

Training is one of several human resource management practices that can be used to increase a company's competitiveness. Other human resource management practices include recruiting employees, selecting employees, designing work, rewarding employees, and labour and employee relations.

Training refers to a planned effort by a company to facilitate employees' learning of job-related competencies. These competencies include knowledge, skills or behaviors that are critical for successful job performance. The goal of training is for employees to master the knowledge, skill and behaviors emphasized in training programs and to apply them to their day-to-day activities.

Training is essentially a process of learning, and studies show there are several things you can do to improve learning. The three important aspects in this regard are:

To make learning meaningful: It is usually easier for trainees to understand and remember material that is meaningful.

Make Skills Transfer Easy: Make it easy to transfer new skills and behavior from the training site to the job site.

Motivate the Learner: Trainees learn best when the trainers immediately reinforce correct responses, perhaps with a quick 'Well Done'.

Training evaluation means the systematic collection of data relevant to the selection, adoption, value or modification of workplace learning activities. Despite organizations expending a great deal of effort in setting up training and development programmes, comparatively little attention is paid to evaluating their effectiveness.

The entire thesis has been presented in 6 chapters along with 6 appendices. The Chapter Scheme and Appendices are as follows:

1. Introduction
2. Literature Review
3. Objectives, Hypothesis and Research Methodology
4. Data Collection
5. Data Analysis, Findings and Interpretations
6. Conclusions, Suggestions and Recommendations

Bibliography

Appendices:

i. Questionnaire designed for middle and senior level employees
ii. Questionnaire for training managers
iii. Responses of Employees in the Manufacturing Industries
iv. Responses of Employees in the Information Technology Industries
v. Consolidated Analysis of Responses in Manufacturing and Information Technology Industries
vi. Contact details of Manufacturing Industries
vii. Contact details of Information Technology Industries

Objectives of the Study:

a) To understand the importance given to training needs' identification in the Manufacturing and also in the Information Technology industries.
b) To understand how employees perceive training in both the types of industries.
c) To measure the adequacy of the training for improving skills and competency of employees in both the types of industries.
d) To understand the manager's role in the career management of employees through training in both the types of industries.
e) To review how effective is the training function in both the types of industries.

Hypothesis

Training programmes have a greater impact on middle level and senior level managers in the information technology industry than in the manufacturing industry.

Research Methodology

The present study depends on primary data. The Responses of the employees at the middle level and senior level management of the manufacturing and information technology industries is collected. Renowned manufacturing and information technology industries in and around Pune are studied for the purpose of this research.

The primary data is collected by using exhaustive questionnaire prepared for both employees at middle level and senior level and training managers. Also direct interaction with the employees and training managers was sort.

Two separate questionnaires are used for the study, one for employees and one for the training managers.

On the basis of analysis appropriate statistical technique, Chi Square test is used for testing the hypothesis.

Reliability Testing: The scale which was developed for the study was tested for its reliability by using Cronbach's Alpha where the acceptable score is 0.7 and above. As the respondents were different, the scale devised for the study was tested for both Manufacturing as well as Information Technology Industries. The reliability score was observed to be 0.973 in case of Manufacturing Industries and 0.977 in case of Information Technology Industries.

Validity Testing: The research is based on Training and it is an endeavor to measure the Training Effectiveness. The science of statistics is very open in deciding the acceptable scores. It varies from 99% to as low as 50% depending on the subject matter. In case of Bio Statistics which includes clinical trials,

testing of drugs and procedure which amounts to high risk, the statistician may not be happy even with 99% success as it involves 1% risk related to lives of individuals.

However, in social science, social scientists may lay down their own acceptable levels depending up the objective of research, the implementation and the risk involved. Therefore based on the scholarly papers reviewed and earlier work done in the area, the researcher has thought a score of 75% on the scale would suffice the purpose of research. Thus a score of 75% was thought to be most appropriate.

This indicates that if the total score of the questions under each of the objectives is above 75%, then the training programme would be considered effective as far as that objective is concerned.

Sampling Unit/ frame

Employees at the middle level and senior level management in the manufacturing and information technology industries working in capacity of managers, assistant managers, deputy managers and officers were interviewed along with the training managers.

The companies involved in the study were in and around the city of Pune covered in the following areas: Pirangut, Vadgaonsheri, Sanaswadi, Nagar Road, Shivane, Katraj, Satara Road, Hadapsar, Pimpri, Chinchwad, Vadgoan, Kondwa, Chakan, Hinjewadi, Dhayari, Bhima Koregaon etc.

Sampling Size and Sampling Technique

A total of 300 employees at middle and senior level working in different manufacturing and information technology industries were involved in the study. Also 15 training managers of both the industries were involved.

The study began with a survey of companies in and around Pune out of which, an adequate, appropriate and representative sample of companies on the basis of

stratified random principles was selected. The stratified random sample consisting of companies which have a turnover of more than 50 crores was used.

Thus, it is with special reference to some manufacturing and information technology companies that the researcher has verified the varsity of the objectives in time with the hypothesis.

Data Collection

Data has been collected from the Manufacturing Companies and Information Technology Companies for the purpose of research.

Manufacturing Companies covered in data collection

1. Bajaj Auto Ltd
2. Carraro India Ltd
3. Cummins India Ltd
4. Forbes Marshall
5. Greaves Cotton
6. JCB India Ltd
7. Kalyani Forge Ltd
8. Kirloskar Brothers Ltd
9. Kirloskar Pneumatic Co.Ltd
10. Mahindra & Mahindra
11. Premium Energy Transmission Ltd
12. Tata Motors
13. Tata Yazaki

Information Technology companies covered in data collection

1. BMC Software India Pvt Ltd
2. Capgemini India
3. Cognizant Technology Solutions
4. Cybage Software Pvt Ltd
5. IBM
6. Information Systems Resource Centre Pvt Ltd (ISRC)

7. Infosys
8. KPIT Cummins
9. MphasiS
10. Parametric Technology Corporation (PTC)
11. Persistent Systems Ltd
12. SAS Institute India (Pvt) Ltd
13. Symantec
14. Tata Consultancy Services
15. Tata Technologies Ltd
16. Wipro Technologies
17. Zensar Technologies

Data Analysis

Questionnaire for responses of employees

Effectiveness of the training programme is linked with each of the objectives. The respondents were asked to give their responses based on a five-point rating scale as follows:

Score	Item Description
4	to those items that are completely true
3	to those items that are mostly true (75% true)
2	to those items that are somewhat true (50% true and 50% false)
1	to those items that are only slightly true/true to a little extent (25% true and 75% false)
0	to those items that you think are totally false to your organization

If the total score of the questions under each of the objectives is above 75%, then the training programme would be considered effective as far as that objective is concerned.

However overall score of the ratings on the 50 items have to be added for each respondent to compute training effectiveness score. The total scores could range from 0 to 200 points per respondent. Score of 150 points and above indicates that the training function is effective in the organization.

Question No 51 in the questionnaire for the middle level and senior level employees has been framed for the purpose of eliciting the views of the respondents in regard to certain theoretical aspects. These responses are significant by way of additional information only and without any direct relationship with the objective or hypothesis of the research.

Questionnaire for responses of training manager

This questionnaire consists of 30 questions aimed at finding out how results-based are training and development programs in the organization according to the training managers. Each of these 30 questions has to be answered by selecting any one of the three responses given below it. Interpretation of the Training and Development Programs Assessment Scoring of the assessment instrument is as follows.

1 point for each (a) response

3 points for each (b) response

5 points for each (c) response

The total will be between 30 and 150 points.

Testing of the Hypothesis through Statistical Procedure

Null Hypothesis H0: There is no significant difference in the training effectiveness of Manufacturing and Information Technology Industries

Alternate Hypothesis H1: Training is more effective in Information Technology Industries than in Manufacturing Industries

i.e. Training programmes have a greater impact on middle level and senior level managers in the information technology industries than in the manufacturing industries.

Effectiveness of the training function as per the respondents in the Manufacturing Industries and Information Technology Industries

Out of 150 respondents in the Manufacturing Industries 86 respondents feel training function is effective while 64 respondents feel training function is not effective.

The opposite response is seen in the Information Technology Industries, where 64 respondents feel training function is effective and 86 respondents feel training function in the organization is not effective.

Chi square test can be applied to the above data to see if there is a significant difference in the training effectiveness of the industries and the calculated value was seen to be 6.452

Table value of χ^2 at 95% confidence interval is 3.841

Thus, we reject H0 at 5% level of significance.

This indicates that there is a significant difference between the training effectiveness in the Manufacturing and Information Technology Industries.

Further it follows that training programmes have a greater impact on middle level and senior level managers in the manufacturing industry than in information technology because:

86/150 responses in the Manufacturing Industries are > 64/150 responses in Information Technology Industries. ie. 0.57 > 0.42

Conclusions

1. **Induction Training**: Is given importance, is of sufficient duration but senior managers do not take enough interest.

2. **Development of managerial capabilities**: Manufacturing Industries are better but creation of second line of leadership is not given adequate importance in both Industries.
3. **Seriousness of training programmes**: Taken more seriously in Manufacturing Industries.
4. **Quality of training programmes**: Better in Manufacturing Industries than in Information Technology Industries.
5. **Training Policy**: Well-designed and widely shared training policies exist in both the types of industries.
6. **Training Budget**: Is sufficient which increases in pace with the market trends.
7. **Upgrading Skills of employees**: Not adequate training is devoted to learn future job skills and not customized according to the requirements of each individual in both the industries.
8. **Administration of training**: Better in Manufacturing as compared to IT industry.
9. **Rewards and Incentives**: Not seen to be very positive in both the industries.
10. **Development of Competency**: Given more importance in Manufacturing Industries than in Information Technology Industries.
11. **Relevance of training programme:** There is a Training gap between the needs analysis and actual implementation of the training programme.
12. **Retention of training**: Better in Manufacturing Industry than in Information Technology Industry.

Finally on the basis of exhaustive thorough analytical research and proving of the hypothesis and validation of the objectives it is completely and appropriately established that Training programmes are more effective in Manufacturing Industries than in Information Technology Industries.

Views of Training Managers

- Training programmes are planned after identifying training needs.
- Training programmes are in consideration with employees requests.
- Training programmes are evaluated after the training is completed in most cases.
- Management's involvement in the training process is quite adequate.
- Budgeting for training and education is based on previous year's budget instead of a zero-based system.
- Enough scope is given to the employees to implement the learned capabilities.
- Rewards are bestowed on employees when results are shown.

Suggestions and Recommendations

1. Training managers should take interest in the new recruits
2. Second line of leadership should be created
3. Employees should take training programmes seriously
4. Training programmes should be chosen carefully
5. Budget should be judicially estimated
6. Training should help in pursuing long term assignments
7. Training should focus on results
8. Learning through training should be an ongoing process
9. Attach rewards and incentives to training programmes
10. Training should solve the root cause of performance problem
11. Training should reflect upon the learning
12. Training should create a positive sense of Internal Competition and social identity
13. Managers through training programmes should turn knowledge into action
14. Firing employees should not be the solution to failure